

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (previously presented) A method to test operating safety of a process control
5 device designed to close or open a pipe of a process system in the event of an
incident comprising a process valve and a pneumatic actuator to move the
process valve, a position controller in a safety circuit, the pneumatic actuator
being coupled to a control unit that is connected to the position controller for
exchange of control signals, such that the pneumatic actuator can be operated
10 by way of the control unit to move the process valve and the process valve can
be moved from an initial condition to a final condition in the event of an incident
by the pneumatic actuator which is controlled by the control unit, and a test cycle
for the process control device comprising:

- generating a control signal for partial movement of the process valve
15 aided by the position controller;
transferring the control signal from the position controller to the control unit
via a signal connection;
controlling the pneumatic actuator depending on the control signal aided
by the control unit to operate the pneumatic actuator for the partial
20 movement of the process valve from the initial condition;
detecting, via a measurement device, measurement signals that indicate
the partial movement of the process valve from the initial condition;
and
returning the process valve to the initial condition.

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2. (original) The method according to claim 1, further comprising:

detecting time-resolved path signals upon detection of the measurement
signals with the aid of the measurement device.

3. (previously presented) The method according to claim 2, further comprising:
determining movement parameters from the detected time-resolved path
signals.

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4. (original) The method according to claim 1, further comprising:
executing a leakage measurement upon detection of the measurement
signals, aided by the measurement device.

- 10 5. (original) The method according to claim 1, further comprising:
electronically logging of a course of the test cycle and electronically
storing the course in a storage device.

6. (original) The method according to claim 1, further comprising:
15 activating the test cycle for the process control device utilizing a remote
control.

7. (previously presented) The method according to claim 1, further comprising:
partially venting the pneumatic actuator to partially move the process
20 valve as a reaction to the controlling by the control unit.

8. (cancelled).

9. (previously presented) A device to test the operating safety of a process
25 control device designed to close or open a pipe of a process system in the event
of an incident, comprising:

a process valve;

an actuator to move the process valve;

a position controller in a safety circuit;

5 a control unit that is connected with the position controller configured to
exchange control signals and is coupled to the actuator, such that
the actuator can be operated via the control unit to move the
process valve from an initial condition to a final condition in the
event of incident;

10 a measurement device configured to acquire measurement signals that
indicate a movement of the process valve from the initial condition;

the position controller comprising a control signal generator configured to
generate a control signal for a partial movement of the process
valve in the course of a test cycle for the process control device,
and to transmit the control signal via a signal connection from the
15 position controller to the control unit.

10. (original) The device according to claim 9, wherein the control unit and the
position controller are redundantly coupled to the actuator to operate the
actuator.

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11-12. (cancelled).

13. (previously presented) The device according to claim 9, wherein the
measurement device comprises a motion sensor configured to detect the partial
25 movement of the process valve.

14. (previously presented) The device according to claim 9, wherein the measurement device comprises a sound sensor configured to detect the partial movement of the process valve.

5 15. (original) The device according to claim 9, further comprising:
a suppression device to suppress the generation of the control signal for the partial movement of the actuator in the course of the test cycle.

16. (original) The device according to claim 9, further comprising:
10 a storage device configured to store electronic information concerning the test cycle.

17. (previously presented) The device according to claim 9, further comprising:
an evaluation device configured to automatically evaluate the
15 measurement signals that indicate a movement of the process valve from the initial condition.

18. (previously presented) The method according to claim 1, wherein the detecting is performed as a direct detecting of the process valve and the
20 measurement signals are directly taken from the process valve.

19. (currently amended) The method according to claim 1, wherein the measurement device is located between the process valve ~~control element~~ and the actuator.

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20. (new) The method according to claim 1, wherein the control signal is an electrical control signal that is generated by the position controller and transferred to the control unit.

- 5 21. (new) The method according to claim 9, wherein the control signal is an electrical control signal that is generated by the position controller and transferred to the control unit.